

Attachment A. Final regulatory revisions to 310 CMR 7.00: Appendix B

Modify 310 CMR 7.00: Appendix B(1) by adding text in italics below:

APPENDIX B: U EMISSION BANKING, TRADING, AND AVERAGING

(1) Introduction. 310 CMR 7.00: Appendix B(1) *through (6)* establishes principles and procedures which can be utilized by facilities to comply with the requirements of 310 CMR 7.18, 310 CMR 7.19 and 310 CMR 7.00: Appendix A. 310 CMR 7.00: Appendix B contains provisions to allow emission averaging or “bubbles” and provisions to allow for the creation and use of emission reduction credits to be “banked”, used or traded among facilities.

Add 310 CMR 7.00: Appendix B(7) to Appendix B, as follows:

(7) Greenhouse Gas Credit Banking and Trading.

(a) Introduction and statement of purpose. The goal of the program set forth in 310 CMR 7.00: Appendix B(7) is to reduce, avoid or sequester emissions of greenhouse gas (GHG) in order for affected facilities as defined in 310 CMR 7.29 (“affected facilities”) to use GHG Credits for compliance with the applicable provisions of 310 CMR 7.29(5)(a)5.

(b) Definitions. The definitions in 310 CMR 7.00 apply to 310 CMR 7.00: Appendix B(7). However, the following terms have the following meanings when they appear in 310 CMR 7.00: Appendix B(7). Where a term defined in 310 CMR 7.00 definitions also appears in 310 CMR 7.00: Appendix B(7)(b), the definition in 310 CMR 7.00: Appendix B(7)(b) controls.

Additional means GHG emission reductions, avoided emissions, or sequestered emissions that are not required by local, state or federal law or regulation, or as part of a local, state or federal permit, plan, or plan approval, agreement, administrative or judicial order, or as part of an enforcement action (including such laws, regulations, permits, plans, plan approvals, agreements, orders or actions taken to reduce other pollutants) at the time of submittal of a certification application. A requirement to obtain a permit or plan approval under local, state, or federal law solely for the purpose of constructing, installing, or operating a voluntary emission reduction, avoided emission, or sequestered emission project shall not be considered when determining whether or not such project is additional.

Afforestation means the conversion of land that has been in a non-forested state for at least the 10 years prior to the filing of an initial application for GHG Credit certification to a forested state.

Avoided Emissions means emissions of a GHG that do not occur and which would have otherwise occurred if not for specific projects undertaken.

Certification means the process of reviewing and conditionally approving a quantity of emission reductions, avoided emissions or sequestered emissions as GHG Credits.

Coastal Waters means the waters within the 12-mile limit pursuant to the Tariff Act of 1930 19 USC §1401.

Carbon dioxide equivalent or CO_{2e} means the weight of a quantity of a GHG multiplied by its Global Warming Potential.

Energy Conservation Measure means an action that reduces demand for electricity. An Energy Conservation Measure means the installation or implementation of one or more of the following measures:

- (a) the design, acquisition, and installation of projects which result in energy savings, or
- (b) the modification of maintenance and operating procedures in a building or facility which result in energy savings, or
- (c) the installation, replacement, or modification of equipment, fixtures, or materials in a building or facility which reduce energy consumption, and include, but are not limited to, modifications to windows and doors; caulking and weather-stripping; insulation; automatic energy control systems; hot water systems; equipment required to operate steam, hydraulic, and ventilation systems; plant and distribution system modifications including replacement of burners, furnaces or boilers; devices for modifying fuel openings; electrical or mechanical furnace ignition stems; utility plant system conversions; replacement or modification of lighting fixtures; and energy recovery systems.

Energy Conservation Measures do not include reductions in labor, load shifting, or measures that do not reduce energy use directly.

Enforceable means enforceable by the Department.

GHG Credit means a credit based on an amount of emission reductions, avoided emissions or sequestered emissions of a GHG. One GHG Credit has an assigned value of one ton of carbon dioxide equivalent. GHG Credits shall be expressed in whole tons. When certifying or verifying GHG Credits, the number of GHG Credits is rounded down for decimals less than 0.5 and rounded up for decimals of 0.5 or greater.

GHG Expendable Trust means the trust established pursuant to 801 CMR 50.00 for the purpose of providing a separate segregated interest-bearing account for the receipt of payments made pursuant to 310 CMR 7.00: Appendix B(7)(d)5.

GHG Registry means the database of Massachusetts GHG Credits that have been certified, verified, voided or used.

Global Warming Potential or GWP means the ratio of the global heat trapping effect, direct and indirect, of one mass unit of a gas to that of the same mass unit of carbon dioxide over 100 years. In implementing 310 CMR 7.00: Appendix B(7), the Department shall utilize the GHG GWPs, as published by the Intergovernmental Panel on Climate Change (IPCC), at the time of submittal of a certification application.

Greenhouse Gas or GHG means any of the gases for which a GWP is listed by the Intergovernmental Panel on Climate Change.

Leakage means displacement of reduced, avoided, or sequestered GHG emissions to an area or location outside of the boundary of a project which reduced, avoided or sequestered the GHG emissions.

Permanent means that GHG emission reductions, avoided emissions, or sequestered emissions implemented for the purpose of generating GHG Credits must be assured for the life of the corresponding GHG Credits.

Real means actual.

Renewable Energy Generation Measure means an energy supply-side measure using sources that are essentially inexhaustible or regenerative. Renewable sources of energy include, but are not limited to, wood, geothermal, wind, photovoltaic and solar thermal energy.

Sequestered Emissions means carbon that has successfully been captured and securely stored that would have otherwise been emitted to or remained in the atmosphere.

Verifiable means that emission reductions, avoided emissions or sequestered emissions can be determined through replicable (as defined in 310 CMR 7.00: Appendix B(2)) methods which are acceptable to the Department.

Verification means the process of determining the extent to which certified GHG emission reductions, avoided emissions or sequestered emissions actually occurred.

(c) Applicability.

1. Entry into this GHG Banking and Trading Program is voluntary.
2. 310 CMR 7.00: Appendix B(7) applies to affected facilities and any other person applying for certification or verification of GHG Credits.
3. GHG Credits certified or verified under this regulation may only be used to satisfy the requirements of 310 CMR 7.29(5)(a)5.
4. Applications for certification or verification of GHG Credits may be submitted by any person.

(d) Creation of GHG Credits.

1. GHG Credits may be created by projects which reduce emissions, avoid emissions, or sequester emissions. Examples include, but are not limited to: landfill gas combustion; sulfur hexafluoride (SF₆) capture; afforestation; natural gas, oil and propane end-use efficiency; methane capture from farming operations; stationary, area and mobile source projects; renewable energy projects; and energy conservation measures.
2. The following are not eligible for certification as GHG Credits: nuclear power generation, under-water and under-ground sequestration, and over-compliance with the cap and rate limitations in 310 CMR 7.29 by affected facilities.
3. Except as allowed pursuant to 310 CMR 7.00: Appendix B(7)(d)4, emission reduction, avoided emission or sequestered emission projects shall be located within the geographic limits of Connecticut, Delaware, Maine, Massachusetts, Maryland, New Hampshire, New Jersey, New York, Vermont, or the coastal waters thereof, or a United States jurisdiction that has a carbon constraining program approved by the Department under 310 CMR 7.00: Appendix B(7). The Department shall maintain a list of approved carbon constraining programs or portions thereof.
4. Offset Trigger Price
 - a. The Department shall establish an offset trigger price for each calendar year. The offset trigger price for calendar year 2006 shall be \$6.50 per ton of CO_{2e}. For each calendar year after 2006, until such time as the offset trigger price is exceeded, the Department shall publish the new offset trigger price by January 31, which shall be equal

to the previous year's offset trigger price adjusted up or down according to the previous year's Consumer Price Index.

b. By February 15 of each year, the Department shall determine whether the offset trigger price for the previous calendar year was exceeded, or whether there are insufficient GHG Credits available for purchase at or below the offset trigger price for the previous calendar year in the geographic region specified in 310 CMR 7.00: Appendix B(7)(d)3,. In determining whether the offset trigger price for the previous calendar year was exceeded, the Department may consider the average calendar year price of GHG Credits or of applied-for GHG Credits for the previous year, or any other relevant information.

c. Notwithstanding 310 CMR 7.00: Appendix B(7)(d)3., if the Department determines that the offset trigger price for the previous calendar year was exceeded, or that there are insufficient GHG Credits available for purchase at or below the offset trigger price for the previous calendar year in the geographic region specified in 310 CMR 7.00: Appendix B(7)(d)3., then, for all subsequent years, applicants may apply for certification and verification of projects that occur anywhere on Earth, and certification and verification of CO₂ allowances and CO_{2e} credits from any allowance or credit system.

5. Trust Trigger Price

a. The Department shall establish a trust trigger price for each calendar year. The trust trigger price for calendar year 2006 shall be \$10.00 per ton of CO_{2e}. For each calendar year after 2006, the Department shall publish the new trust trigger price by January 31, which shall be equal to the previous year's trust trigger price adjusted up or down according to the previous year's Consumer Price Index plus 2%.

b. By February 15 of each year, the Department shall determine whether the trust trigger price for the previous calendar year was exceeded. In making this determination, the Department may consider the average calendar year price of GHG Credits, of applied-for GHG Credits, or of projects funded or credits or allowances purchased by the GHG Expendable Trust for the previous year, or any other relevant information.

c. Notwithstanding 310 CMR 7.00: Appendix B(7)(d)3. and 4., if the Department determines that the trust trigger price for the previous calendar year was exceeded, then, to demonstrate compliance with the current calendar year's CO₂ limits, affected facilities may pay into the GHG Expendable Trust at the price established pursuant to 310 CMR 7.00: Appendix B(7)(d)5.a. to offset all or a portion of emissions above the historical actual emissions or excess emissions pursuant to 310 CMR 7.29(5)(a)5.c. and d., so that a combination of GHG Credits and payments into the GHG Expendable Trust equals emissions above historical actual emissions plus excess emissions.

6. Notwithstanding 310 CMR 7.00: Appendix B(7)(d)3., 4., and 5., if, at any time prior to January 1, 2009, the Commissioner determines that the price of GHG Credits or of applied-for GHG Credits substantially exceeds either of the price thresholds established in 310 CMR 7.00: Appendix B(7)(d)4. or 5., or if insufficient GHG Credits are available, then the Commissioner may, after public notice in the Environmental Monitor, and an opportunity for public comment, expand the geographic scope or allow payments into the GHG Expendable Trust at the rate set forth in 310 CMR 7.00: Appendix B(7)(d)5. This provision shall have no effect on and after January 1, 2009.

7. In order to be certified or verified as GHG Credits pursuant to 310 CMR 7.00: Appendix B(7), emission reductions, avoided emissions, or sequestered emissions shall be real, additional, verifiable, permanent, and enforceable and occur on or after January 1, 2006.

8. In the case of sequestered emissions, in order for a GHG Credit to be permanent, the owner shall, at a minimum, place the land within the sequestration project boundary under a legally binding instrument, acceptable to the Department, such that the sequestered emissions remain captured and securely stored in perpetuity.

9. In order to be certified or verified as GHG Credits pursuant to 310 CMR 7.00: Appendix B(7), emission reductions, avoided emissions, or sequestered emissions shall be generated only by projects built and generating energy (in the case of certain avoided emissions), or built and in use, or installed and operational (in the case of emission reductions or sequestered emissions) on or after January 1, 2006.

(e) Procedure For Certification and Verification of Emission Reductions, Avoided Emissions, or Sequestered Emissions as GHG Credit.

1. An application for certification of GHG Credit may be submitted to the Department in advance of the time when the emission reduction, avoided emission, or sequestered emission actually occurs (prospective certification) or after the emission reduction, avoided emission, or sequestered emission has actually occurred (retrospective certification).

2. In order for a GHG Credit to be eligible for verification, an application for verification of GHG Credit shall be submitted to the Department within two calendar years after the end of the calendar year in which the emission reduction, avoided emission, or sequestered emission actually occurred. Applicants may apply for verification a maximum of two times per calendar year per approved certification.

3. For project-based emission reductions, avoided emissions, or sequestered emissions, only those projects which generate an annual average over the period applied for of 5,000 or more tons CO_{2e}, as calculated under 310 CMR 7.00: Appendix B(7)(d), are eligible to be certified as GHG Credits.

4. Application Procedures for projects.

a. Applications are required for certification and verification of GHG Credits from emissions reduction, avoided emission and sequestration projects.

b. The GHG Credit application shall be submitted on a form supplied by the Department and shall include but not be limited to: a complete description of the project; a quantification protocol that details the calculation method for the quantification of pre- and post-project emissions for emission reductions; quantity of avoided emissions; or quantity of sequestered emissions, and a proposed method for determining, monitoring and assuring compliance.

c. GHG Credit applications shall express emission reductions, avoided emissions, and or sequestered emissions in whole tons of CO_{2e}. When certifying or verifying GHG Credits, the number of GHG Credits is rounded down for decimals less than 0.5 and rounded up for decimals of 0.5 or greater.

d. GHG Credit applications shall contain sufficient information to allow the Department to evaluate each emission reduction, avoided emission or sequestered emission consistent with the requirements of 310 CMR 7.00: Appendix B(7). Where applicable, the applicant shall specify the best management practice used to determine an emissions baseline.

e. GHG Credit applications shall be submitted by and bear the signature of a responsible official having the legal authority to bind the applicant.

f. GHG Credit applications shall comply with provisions of 310 CMR 4.00 et seq. for fees and permit procedures as applicable.

g. Concurrent participation in other registries and certification programs.

i. If an applicant has submitted information relative to the emission reductions, avoided emissions, or sequestered emissions for which the applicant is seeking certification under Appendix B(7) to any other certification system, registry or inventory, then the applicant shall submit a copy of such information with its application for certification of GHG Credit in Massachusetts. The applicant shall state the status of its submittal to such other certification system, registry or inventory.

ii. If an applicant for GHG Credit fails to comply with 310 CMR 7.00: Appendix B(7)(e)4.g.i., then the Department may deny any GHG Credit applied for and void any GHG Credits that may have been approved. GHG Credits shall be voided in cases where the GHG Credit is found to have been used for a purpose other than those specified in 310 CMR 7.00: Appendix B(7).

h. GHG Credit certification and verification applications shall contain a description of potential project leakage, and describe how such leakage was or will be monitored and avoided. The Department shall void GHG Credits to the extent of any leakage that has been identified.

i. GHG Credit applications shall document the negotiated or anticipated price per ton of GHG Credit applied for.

5. Applications for GHG Credits from other carbon constraining programs.

a. The Department may approve allowances or credits from any carbon constraining program as GHG Credits, provided that the Department determines such program or portion thereof has procedures in place to ensure allowances or credits are real, additional, verifiable, permanent and enforceable. The Department shall maintain a list of approved programs.

b. The application shall be submitted on a form supplied by the Department and shall include, but not be limited to: a complete description of the project or program as applicable; relevant laws, regulations, policies, and guidelines; and such other information as the Department deems necessary to make a determination pursuant to 310 CMR 7.00: Appendix B(7)(e)5.

6. Conditions of GHG Credit Certification and Verification Approvals

- a. The Department may approve, approve with conditions, or deny GHG Credit applications.
- b. The Department may require applicants to implement compliance assurance methods such as testing, monitoring, recordkeeping and reporting as part of the GHG Credit certification and verification approval.
- c. The Department may consider scientific uncertainty and the extent to which a project may be harmful to the environment or public health when certifying or verifying GHG Credits.

(f) Public participation procedures for GHG Credit certification and verification applications pursuant to 310 CMR 7.00: Appendix B(7)

- 1. The Department shall publish, at the applicant's expense, a notice of public comment on a proposed approval, conditional approval, or disapproval. The Department will allow a 30-day public comment period following publication of the notice, and may hold a public hearing. After the close of the public comment period, the Department will issue a final decision.
- 2. 310 CMR 7.00: Appendix B(7)(f) shall apply to applications for GHG Credit pursuant to this section, instead of the procedures under 310 CMR 7.00: Appendix B(6).

(g) Use and Purchase of GHG Credits.

- 1. To the extent that affected facilities use GHG Credits to comply with 310 CMR 7.29(5)(a)5., only GHG Credits verified under 310 CMR 7.00: Appendix B(7) may be used, except as allowed by 310 CMR 7.00: Appendix B(7)(g)2.
- 2. Affected facilities may use GHG Credits certified in calendar years 2006 and 2007 to meet any compliance obligation under 310 CMR 7.29(5)(a)5. for those years, provided that such GHG Credits are verified by December 31, 2008. If any certified GHG Credits which were used for calendar year 2006 or 2007 compliance with 310 CMR 7.29 are not verified by December 31, 2008 due to leakage or any other reason, the affected facility using the certified GHG Credits shall provide an equivalent amount of valid GHG Credits in the 310 CMR 7.29 calendar year 2008 report due January 30, 2009. Notwithstanding 310 CMR 7.29(7), for calendar year 2006 only, affected facilities shall demonstrate compliance with 310 CMR 7.29(5)(a)5. on or before September 1, 2007. If GHG Credits are used to demonstrate compliance, then said GHG Credits must be certified on or before September 1, 2007.
- 3. GHG Credits that have been used to satisfy any GHG liability or requirement other than 310 CMR 7.29, with the exception of requirements to disclose environmental and other attributes of electricity generation, shall not be eligible for use to comply with the requirements of 310 CMR 7.29.
- 4. Any person who purchases a GHG Credit from any source shall report the price paid per GHG Credit to the Department within 30 days of purchase.
- 5. Once the Department approves an allowance or credit program or portion thereof pursuant to 310 CMR 7.00: Appendix B(7)(e)5.a., an affected facility may demonstrate compliance with the CO₂ provisions of 310 CMR 7.29 by demonstrating in the 310 CMR 7.29 compliance report due

by January 30 of each year, or by September 1, 2007 as allowed in 310 CMR 7.00: Appendix B(7)(g)2., that such allowances or credits have been retired for compliance with 310 CMR 7.29(5)(a)5. and by reporting the price paid for such allowances or credits.

6. Nothing in 310 CMR 7.00: Appendix B(7) or 310 CMR 7.29 (5)(a)5. shall be construed to limit the authority of the Department to terminate, void, or limit GHG Credits that have been certified or verified.

7. If the Department determines that any emission reductions, avoided emissions, or sequestered emissions used to generate GHG Credits are not real, additional, verifiable, permanent, or enforceable as defined in 310 CMR 7.00: Appendix B(7)(b), such GHG Credits shall become void.

8. Any affected facility using voided GHG Credits shall replace the voided GHG Credits with an equivalent amount of valid GHG Credits and shall demonstrate compliance with this provision within one year of the date that the Department determines that such GHG Credits are void.

9. For purposes of 310 CMR 7.00: Appendix B(7), violations of the requirements herein may be enforced against the affected facility, any person who applied for certification or verification of GHG Credits, or any combination thereof. Nothing herein shall limit the ability of the Department to take enforcement action for violations of 310 CMR 7.29 or 310 CMR 7.00: Appendix B(7).

(h) Program review.

1. The Department shall conduct a review of the GHG emission trading program beginning in 2010 and every five years thereafter. This review shall evaluate the reduction of CO₂ emissions, handling of applications for GHG Credit approval, and the use of approved GHG Credits, and may include review of GHG Credit creation and use protocols, and compliance assessment of sources using GHG Credit. The program review may also include assessment of the impact of the program on New England Governors/Eastern Canadian Premiers Climate Change Action Plan milestones.

2. The Department may propose the appropriate program revisions pursuant to Chapter 30A administrative procedures based upon program review.

Attachment B. Final regulatory revisions to 310 CMR 7.29

Modify 310 CMR 7.29 by adding text in italics and deleting text in strikethroughs below:

310 CMR 7.29(2) Definitions.

~~Off-site Reduction means reductions of carbon dioxide, including, but not limited to, carbon sequestration measures, shutdown of carbon dioxide sources, or renewable energy generation measures listed in 40 CFR Part 73 Subpart F Appendix A 3. Reductions shall be approved by the Department through quantification methodologies equivalent to quantification methodologies contained in 310 CMR 7.00: Appendix B(3).~~

~~Sequestration means the uptake and long term storage of carbon in the biosphere, underground, or the oceans so that the buildup of carbon dioxide concentration in the atmosphere will be reduced or slowed.~~

310 CMR 7.29(5)(a)5. Carbon Dioxide Emission Standards.

c. Compliance with 310 CMR 7.29(5)(a)5.a. may be demonstrated by using ~~offsite-emission~~ reductions, *avoided emissions* or *sequestered emissions*~~ration~~ *verified under 310 CMR 7.00: Appendix B(7)* to offset emissions above the historical actual emissions, provided the Department determines such *emission* reductions, *avoided emissions* or *sequestered emissions*~~ration~~ are real, *additional*~~surplus~~, verifiable, permanent, and enforceable *as defined in 310 CMR 7.00: Appendix B(7) or by using the GHG Expendable Trust under the conditions specified in 310 CMR 7.00: Appendix B(7)(d)5, as defined at 310 CMR 7.00: Appendix B.*

d. Compliance with 310 CMR 7.29(5)(a)5.b. may be demonstrated by using ~~off-site-emission~~ reductions, *avoided emissions* or *sequestered emissions*~~ration~~ *verified under 310 CMR 7.00: Appendix B(7)* to offset excess emissions, provided the Department determines such ~~offsite-emission~~ reductions, *avoided emissions* or *sequestered emissions*~~ration~~ are real, *additional*~~surplus~~, verifiable, permanent, and enforceable *as defined in 310 CMR 7.00: Appendix B(7) or by using the GHG Expendable Trust under the conditions specified in 310 CMR 7.00: Appendix B(7)(d)5, as defined at 310 CMR 7.00: Appendix B.* Excess emissions are any emissions above the net electrical output of the facility times 1800 lbs./MWh.